July 16, 2007

255 Rockville Pike, Suite 120 Rockville MD 20850

7:00 p.m.- 9:00 p.m.

Member and affiliation		ent	Others in attendance and affiliation
		No	Others in attenuance and animation
Jill Coutts, scientific/academic	✓		Ted Graham, MWCOG
Kay Fulcomer, public-at-large	✓		Dana Minerva, Exec. Dir. Anac. Partnership
Scott Kauff, public-at-large	✓		Tomlyn Malcolm, MWCOG
Lonnie Luther, agricultural		✓	
Glenn Moglen, scientific/academic	✓		
Fred Phillips, public-at-large	✓		
David Plummer, agricultural	✓		
Dusty Rood, Vice-Chair, business	✓		
*Fred Samadani, agricultural	✓		
*Mary Segall, business	✓		
Larry Silverman, Chair, environmental	✓		
Mike Smith, environmental	✓		
*Tanya Spano, environmental	✓		
*Eileen Straughan, business	✓		
*Ilsa Tawney, public-at-large	✓		
*Martin Chandler, WSSC	✓		
Meo Curtis, DEP	✓		
Doug Redmond, MNCPPC	✓		

^{*} New to Water Quality Advisory Group

Agenda Item	Action
1. Welcome. Chair Silverman.	Larry Silverman, first meeting as Chair, welcomed new members, old members, and guests. He distributed a draft 'Member handbook' and requested input. Purpose of member handbook is to put important background information in one source. He proposed a goal to encourage more outreach and feedback to the Executive and Council. His desire is to get more public participation by moving the WQAG meetings from County office buildings and instead to a more visible place like the Rockville library.
2. Introductions. All	The WQAG went around the room with names and background information for all in attendance.
Agenda and meeting summaries.	The WQAG approved the agenda drafted by Chair Silverman. Ms. Curtis had not completed the summary for the June 2007 meeting, and indicated this would be sent to the WQAG with the summary for the current meeting.
4. Letters from Fariba Kassiri and Nancy Floreen.	o Chair Silverman noted that previous Chair Andrews had received a response from Fariba Kassiri, acting Director, to the WQAG letter to the Executive concerning the need for regionally-coordinated nuisance wildlife management. In that letter, Meo Curtis, DEP was tasked to work with Doug Redmond, MNCPPC, to arrange a meeting among those working on the goose management issue to assure communication. Chair Silverman will forward the WQAG letter to the National Park Service (NPS) as a matter of public record. During the week of July 16th, the NPS was holding two meetings on the goose management issue in the Anacostia. o Chair Silverman mentioned an e-mail from Council member Nancy Floreen about sewage disposal issues in the Glen Hills section of Potomac and mention of a DEP study on the problem. Ms. Curtis had forwarded the inquiry to appropriate DEP staff and will provide the WQAG with their

Meeting was adjourned at 9 p.m. Next meeting: August 13, 2007

Meeting summary prepared by Meo Curtis, DEP

Agenda Item	Action
	response on this issue. Chair Silverman said he would also look into the situation prior to recommending any potential WQAG action.
5. Metropolitan Washington Council of Governments: Ted Graham.	Dr. Graham then provided a presentation which included information about MWCOG organization and the many regional water quality issues with which MWCOG is involved. These include regulatory (NPDES stormwater permits and TMDLs) and non-regulatory (Anacostia restoration agreement and Chesapeake Bay restoration) items. The last slides in his presentation included a series of 'challenges and opportunities' (see attachment) which he suggested might be valuable for the WQAG to research, discuss, and provide recommendations for Montgomery County water resources program.
6. Strategic Planning: Dusty Rood, Vice-Chair	Dusty Rood, first meeting as Vice-Chair, identified some elements for discussion at the August meeting. This will be a strategic planning meeting for the WQAG's work program for the next year. Mr. Rood noted that the WQAG had moved from a very structured work program, with specific topics by month of the year to a more ad hoc approach to address emerging issues. He suggested perhaps a hybrid which included a structured work plan and opportunities to address issues that fell outside the work plan topics. There was also mention of the use of committees to work ouside of the monthly meetings and bring more information about specific issues back to the whole group.
7. Web Presence for WQAG: Mike Smith.	Chair Silverman brought up the issue of the WQAG reaching a wider audience. Mike Smith had done some research on using a web-based approach to get more information about the WQAG to the general public. He had visited the WQAG page on the DEP site and noted that it needed to be updated since it showed only part of 2005 summaries. Ms. Curtis noted that the DEP would be hiring an outreach person with web experience to improve and update the DEP page, although that hire would not likely be on board until the end of the year. The WQAG then discussed various options, including volunteer support, to improve the web page. Mike, Glenn, Dusty, and Tanya formed a committee to review these options and make recommendations for near term and long term ways to improve the WQAG page. The Committee would consider goals in reaching out and the expectations of those who might look at the web page while considering options.
8. Next Meeting	Chair Silverman thought an outdoor venue would be useful for the August meeting and had asked Mr. Redmond about possibilities at Parks property. Mr. Redmond was following up with Viers Mill Park. This site was near the DEP's Joseph's Branch stream restoration project. and he suggested that John Hollister, the DEP project manager, would be the most appropriate person to talk about the project. Ms. Curtis said that she would follow up and find out about DEP staff availability for the next month's meeting. The WQAG decided that 30 minutes from 6:30 to 7 p.m. would be set aside for the project tour at the next meeting. Mr. Redmond would provide

Meeting was adjourned at 9 p.m. Next meeting: <u>August 13, 2007</u> Meeting summary prepared by <u>Meo Curtis, DEP</u>

Challenges and Opportunities (1)

- Should there be a clear definition of MEP?
 - Combination of technical and economic feasibility
 - National survey?
 - Regional workshop?
 - Applicability of adaptive management?
 - MEP applied to waterborne trash.
- Should the Potomac & other bodies be listed as trash impaired?
- ➤ How explicit should the link be between TMDLs with WLAs and MS4 permits?
- ➤ What provisions are reasonable for MS4 permits?
 - Inputs (i.e., specify BMPs)?
 - Monitoring (to gauge progress)?
 - Outcomes (numeric limits)?
 - Municipal action levels (like the Ventura draft permit)?
 - Adaptive management?
 - Implementation plans?
- ➤ What needs be done to implement the CB Tributary Strategies?
 - Beyond WWTPs, how should load caps be addressed?
 - County-specific targets?
 - Offsets for new development?
- ➤ How should costs and funding be addressed?
 - How should stormwater controls and watershed restoration costs be paid for?
 - Should Maryland enact the Green Fund?
 - What role should Use Attainability play?
- ➤ What provisions should be included in Maryland's Stormwater Act 2007 regulations?
- Are implementation plans appropriate for a TMDL?
- > Should land use be considered a BMP?
- > How should HB 1141 be implemented (requiring a Water Resources Element in local comprehensive plans)?

Meeting was adjourned at 9 p.m.

Next meeting: August 13, 2007

Meeting summary prepared by Meo Curtis, DEP

August 13, 2007

Viers Mill Local Park Beach Drive and Garrett Park Road Garrett Park

7:00 p.m.- 8:45 p.m.

6:30 p.m. Tour led by Doug Redmond of nearby Joseph's Branch stream restoration.

Mambay and affiliation	Present		041
Member and affiliation		No	Others in attendance and affiliation
Jill Coutts, scientific/academic	✓		
Kay Fulcomer, public-at-large	✓		
Scott Kauff, public-at-large		✓	
Lonnie Luther, agricultural	✓		
Glenn Moglen, scientific/academic		✓	
Fred Phillips, public-at-large		√ *	
David Plummer, agricultural	✓		
Dusty Rood, Vice-Chair, business	Dusty Rood, Vice-Chair, business ✓		
Fred Samadani, agricultural	✓		
Mary Segall, business		✓	
Larry Silverman, Chair, environmental	✓		
Mike Smith, environmental	✓		
Tanya Spano, environmental	✓		
Eileen Straughan, business	✓		
Ilsa Tawney, public-at-large	¯awney, public-at-large ✓		
Martin Chandler, WSSC	✓		
Meo Curtis, DEP	✓		
Doug Redmond, MNCPPC	✓		

* Fred Phillips resigned on August 13, 2007

Agenda Item	Action
Welcome, approval of June and July minutes and agenda. Chair Silverman.	Chair Silverman welcomed members at 7 p.m. to the Park and asked for approval of the draft agenda and meeting summaries for June and July. All were approved. Meo. Curtis distributed copies of the Countywide Stream Protection Strategy (2003) and the County's 'The Path to Sustainability 1996-2006' as well as EPA's pamphlet on using biological monitoring for watershed assessments. She noted that new members might not be aware of this information and that it was useful for background on water quality and environmental status across the County.
2. Report: Web Site: Michael Smith, Meo:Curtis	Mike Smith distributed a list of items (attached) to include on the web site and inquired about housing the WQAG page on the DEP web site. Ms. Curtis indicated that all items on the list could be included on the web site, with some being links to the origin site of the material. A workgroup of Mr. Smith, Tanya Spano, and Glenn Moglen were assigned to evaluate and refine this list as needed for presentation and written request to DEP.
3. Report: Agricultural Issues: Lonnie Luther, Fred Samadani, David Plummer	David Plummer noted that Executive Leggett and Council were providing local support for farmers affected by the drought. He recommended that the WQAG should encourage County elected officials to support this year's federal Farm Bill which included significant funding for agricultural water quality improvement projects within the Chesapeake Bay watershed. Chair Silverman agreed to draft a policy document of implications of the Farm Bill on Montgomery County if Mr. Plummer would draft the cover letter. The WQAG voted to send a letter requesting support to Mr. Leggett, carbon copy the Council.

Agenda Item	Action
4. Report: Meeting with environmental group rep: Larry Silverman	Chair Silverman distributed a list (attached) developed in a discussion with Steve Dryden of Friends of Rock Creek Environment on the 'Value of Local Environmental Groups'. Mr. Dryden is organizing a Watershed Conference in October for Montgomery County community groups. Eileen Straughan indicated that she was planning to attend and would brief the WQAG on what transpired at the conference. The WQAG agreed to pursue opportunities to interact with community and other stakeholder groups at future meetings.
5. Report: Budget and County Council issues: Larry Silverman	Chair Silverman noted the Council's request for input on next year's budget priorities, due by September 4th. He suggested, and the WQAG concurred, that the WQAG send a letter in support of making water a priority and attach the WQAG strategic plan for the coming year. Chair Silverman agreed to draft the letter to Council on recommended budget priorities.
	Vice-Chair Rood began this discussion by reminding members of the need to have a target and game plan and to develop meeting agendas to achieve those goals. He reminded members that the WQAG was an advisory group to the Executive and Council and prohibited from doing any direct lobbying beyond Montgomery County elected officials.
6. Discussion and development of annual work plan: Dusty Rood:	He agreed to develop a summary of the strategic planning session (attached.) There was agreement on workgroup structure (land use, regulation, and outreach) and general meeting structure (committee report including specific issues and recommendations for WQAG action followed by one hour for presentation and discussion on detailed topic. There was agreement that some meetings would be used to educate new members about County structure and programs. The Chair and Vice-Chair agreed to set the annual meeting agenda and distribute for comment to rest of WQAG.

Distributed by Mike Smith

Things that could be on a WQAG web site:

Next meeting location, time, agenda

All recent WQAG letters to the County government (Executive and Council)

All responses from the County government to the WQAG

Recent WQAG meeting summaries

Stream Quality Conditions Maps

Bills creating and reconstituting the WQAG

Useful administrative forms

WQAG representative names

Distributed by Chair Silverman.

Value of Local Environmental Groups:

We identified the following roles that these groups perform:

- 1. Groups organize and deliver **direct services** to streams. They clean up trash, pull out invasive species, plant trees, and sometimes work with government to stabilize banks.
- 2. They are the **eyes and ears** of the stream, detecting and reporting violations and other problems to government agencies. The Friends of Sligo Creek has done a very impressive job on this score, finding a number of serious violations, especially in connection with the WSSC.
- 3. These groups are **advocates** of policies, programs and laws that strengthen environmental protections. Steve indicated that Diane Cameron is drafting a platform for MC groups, which may be one of the products to be agreed on at the conference.
- 4. Local groups sometimes do a good job of encouraging their members to engage in **environmental friendly behaviors** or avoid actions that are destructive. Do not over-fertilize the lawn, switch to low watt bulbs, recycle, be careful with oil changes, don't throw grease down the drain, and so on.
- 5. Local groups provide **educational materials and outreach** to schools and elsewhere about environmental subjects. The Anacostia Watershed Society does a very good job with teacher training programs, youth outreach, public lectures and other important activities.
- 6. Local stream groups can identify and **engage other citizen organizations** and individual neighbors in the effort to improve water quality.

Montgomery County Water Quality Advisory Group 2007-2008 Strategic and Operational Plan

- 1. Strategic Plan Focus
 - a. Regulatory
 - b. Drinking Water
 - c. Communication/Outreach
 - d. Recreation/Parks
 - e. Growth/Development
 - f. Agriculture
 - g. Stream & Watershed Quality
 - h. Education
 - i. Regional Issues
- 2. Operational Plan
 - a. One (1) WQAG Aligned towards providing comprehensive advice to County Council & Executive
 - b. Three (3) ad hoc workgroups
 - i. Regulatory/Technical
 - 1. Regulatory, Drinking Water, Stream & Watershed Quality
 - ii. Communication/Outreach/Education
 - 1. Communication/Outreach, Education
 - iii. Land Use
 - 1. Recreation/Parks, Agriculture, Growth/ Development
 - c. Annual Workplan
 - i. 9-12 Meetings/year
 - ii. Annual Agenda:
 - 1. September: Ad hoc committees
 - 2. October: TBD
 - 3. November: TBD
 - 4. December: TBD
 - 5. January: TBD
 - 6. February: TBD
 - 7. March: TBD
 - April: TBD
 May: TBD
 - 10. June: TBD
 - 11. July: TBD
 - 12. August: TBD
 - iii. Monthly Meeting agenda
 - 1. Approval of Minutes/Agenda: 10 Mins
 - 2. Committee updates: 20 Mins
 - Strategic Plan Topic led by appropriate ad hoc workgroup: 1 hour
 - 4. Ad Hoc Issue: 30 Mins
 - iv. Committee-led discussion template (for guidance only)
 - 1. Describe the issue/topic
 - 2. Describe it's relevance to water quality
 - 3. Describe the short term implications/impacts.
 - 4. Describe the long term implications/impacts.
 - 5. If controversial, describe the perspectives.
 - 6. Committee's recommendation.
 - 7. Discussion.
 - v. Letter of Recommendation/Advice Sponsor: This is the WQAG member who is responsible for writing, editing, leading the discussion, and shepherding the letter of recommendation

September 10, 2007 Rockville Public Library Rockville MD 20850

7:00 p.m.- 8:45 p.m.

		ent	041
		No	Others in attendance and affiliation
Jill Coutts, scientific/academic	✓		Mark Symborski, MNCPPC
Kay Fulcomer, public-at-large	✓		
Scott Kauff, public-at-large		✓	
Lonnie Luther, agricultural	✓		
Glenn Moglen, scientific/academic		✓	
David Plummer, agricultural	✓		
Dusty Rood, Vice-Chair, business	✓		
Fred Samadani, agricultural	Fred Samadani, agricultural ✓		
Mary Segall, business	Segall, business ✓		
Larry Silverman, Chair, environmental	✓		
Mike Smith, environmental	✓		
Tanya Spano, environmental	✓		
Eileen Straughan, business	✓		
Ilisa Tawney, public-at-large	✓		
Martin Chandler, WSSC	✓		
Meo Curtis, DEP	✓		
Doug Redmond, MNCPPC	✓		

Agenda Item	Action
Welcome and establish subcommittees. Chair Silverman	Chair Silverman welcomed all at 7:05 p.m No action items could be considered however until a quorum was established. The Chair reviewed the three committees (Regulatory, Land Use, and Outreach) established to address priority issues for the WQAG.
Approval of August summary and agenda. Chair Silverman	At about 7:15 p.m., a quorum was reached. The August summary and the draft agenda were approved.
3. Comments on rules	Chair Silverman agreed to research rules for working in committees, in particular to accommodate those who could not come to the meeting. Chair Silverman advocated that there were other ways to make a contribution to the group. He noted that being absent from too many meetings would be an issue with the Executive's Office.
4. Break into committees	The WQAG then divided up into three committees. See attachment for committee topic and membership.
5. Wrap-up. Vice-Chair Rood.	Vice Chair Rood reminded all members of the strategic and operational plan developed at the August meeting. There were three dates to keep in mind: summer budget development; annual report in December; and meeting with the Executive in January.

Next Meeting: Chair Silverman volunteered to find out if the Rockville Library meeting room was available for the next WQAG meeting, Monday October 15, from ;7 to 9 p.m. The meeting was moved to the third, rather than second, Monday because of the federal holiday (Columbus' Day) on Monday October 8th.

Meeting was adjourned at _9 p.m. Next meeting: October 15, 2007

Committee Reports

Land Use

Jill Coutts, spokesperson

Other members: David Plummer, Doug Redmond

Not present: Glenn Moglen, Mary Segall

Observer: Mark Symborski

- 1. Need to incorporate requirements of House Bill 1141 (water, wastewater, and stormwater treatment capacity for planned growth) in Comprehensive Plan)
- 2. Land use changes--redevelopment, agricultural lands going to low density/medium density development
- 3. Parks--management and maintenance
- 4. Trees--more trees!

Outreach and Communication

Tanya Spano, spokesperson

Other members: Kay Fulcomer, Lonnie Luther

- 1. Need for assessment of regional programs/efforts/issues and establish baseline.
- 2. Before May 2008, evaluate Montgomery County Public Schools curricula and make recommendations for more of a water quality focus.
- 3. Identify outreach and communication needs on water resources by community.
- a. Agricultural community
- b. Highly urbanized areas

Regulatory/Technical

Eileen Straughan, spokesperson

Other members: Fred Samadani, Ilisa Tawney, Martin Chandler, Meo Curtis, Mike Smith

Not present: Scott Kauff

- 1. What are current water protection efforts--baseline?
- 2. What is relation of baseline efforts to water quality goals?
- 3. How to maximize effectiveness of programs by coordinating among local, state, and federal agencies, and with community and other non-agency groups?
- 4. Is the monitoring and assessment adequate for judging trends and implementation effects?

Meeting was adjourned at 9 p.m. Next meeting: October 15, 2007 Meeting summary prepared by Meo Curtis, DEP

October 15, 2007 DEP, 255 Rockville Pike, Suite 120, Rockville MD 20850

7:00 p.m.- 9:00 p.m.

Member and affiliation		ent	Others in ettendance and efficient
		No	Others in attendance and affiliation
Ed Brandt, public-at-large	✓		Councilmember Nancy Floreen
Jill Coutts, scientific/academic	✓		
Kay Fulcomer, public-at-large	✓		
Scott Kauff, public-at-large	✓		
Lonnie Luther, agricultural	✓		
Glenn Moglen, scientific/academic	✓		
David Plummer, agricultural	✓		
Dusty Rood, Vice-Chair, business	✓		
Fred Samadani, agricultural	✓		
Mary Segall, business	✓		
Larry Silverman, Chair, environmental	✓		
Mike Smith, environmental	✓		
Tanya Spano, environmental	✓		
Eileen Straughan, business	✓		
Ilisa Tawney, public-at-large		✓	
Martin Chandler, WSSC	✓		
Meo Curtis, DEP	✓		
Doug Redmond, MNCPPC	✓		

Agenda	Action
Item	
Welcome and agenda and summary. Chair Silverman	Chair Larry Silverman welcomed Councilmember Nancy Floreen to the WQAG meeting. He then asked for and received approval from the WQAG for the Meeting Agenda and for the September 10 Meeting Summary.
2. Introductions. WQAG.	Chair Silverman asked all members to introduce themselves by going around the room. Ed Brandt, new public-at-large member, was in attendance at his first WQAG meeting after Council confirmation. Chair Silverman told Ms. Floreen that the function of the WQAG was to advise the County Executive and Council on water resources issues. He mentioned that the WQAG had recently organized into committees in order to better focus their efforts.
3. Report by Land Use Committee: Dusty Rood.	Vice-Chair Dusty Rood gave an overview of the committee process to date. He then presented the specific priority issues identified by the Land Use Committee. The Committee has decided to focus on trends in land use first and then continue research on redevelopment, slower growth, and water quality issues.
4. Report: General comments from Councilmem- ber Nancy Floreen.	Ms. Floreen gave background on her experiences with County government, first as a former Planning Board Member and now as a second term, at-large Council member. She noted her experience with regional issues, with the COG air quality and climate change committee and also as the chair of the Council's Transportation and Environment Committee. She summarized a significant list of recent legislative actions, including the lot-to-lot drainage ordinance, green building initiatives; road code review and changes; and impervious cap reduction to 8% in the Upper Paint Branch SPA. She also mentioned ongoing legislative proposals, including changes to the Forest Conservation Law, the Zoning Ordinance, the Annual Growth Policy, and issues associated with preserving Agricultural Areas and potential changes to allowed septic system types in order to prevent development in the County's agriculture preserve. She advocated that the WQAG members, individually as well as collectively, take time to review water resources information as it becomes available and pass on thoughts and recommendations to her via e-mail or regular mail.

Meeting was adjourned at 9 p.m.

Next meeting: November 19, 2007

Meeting summary prepared by Meo Curtis, DEP

Agenda	Action
Item	
	Chair Silverman, on behalf of the entire WQAG, thanked Ms. Floreen for participating in the meeting and assured her that the WQAG would be submitting their recommendations to her as the Committees continued their review and analysis. Ms. Floreen expressed her appreciation for the WQAG invitation and her hope to hear from them on water quality issues in the future. Glenn Moglen mentioned that he had comments on the road code and road design changes that he would be passing on. Ms. Floreen said she looked forward to receiving them. She then left the meeting.
	NOTE: Attachment 1. includes Dr. Moglen's e-mail to Ms. Floreen with his suggestions.
5. Report: Farm Bill. Larry Silverman	Chair Silverman noted the need for help from the agricultural representatives in order to identify the items in this Farm Bill with the greatest importance to water quality for Montgomery County. David Plummer told the WQAG that the bill is too complex to identify specific County benefits and advocated a rather more generic support for resources to support agriculture within the Chesapeake Bay agreement goals. <i>Mr. Plummer agreed to draft a letter of comment and will send the final draft to Larry and Dusty within one week.</i>
6. Report: Education Sub- Committee. Tanya Spano	Tanya Spano distributed a one-page summary (Attachment 2) of the Education Subcommittee activities. Fred Samadani mentioned that for outreach in agricultural topics there was the Envirothon, organized for high school students by the Soil Conservation District. Kay Fulcomer advocated working with elementaary and middle school. She suggested the topic of renewable and non-renewable resources and the link with water quality. She suggested inviting Becky Bell, science curriculum for the State, to find out what is happening at the State level. Other WQAG members indicated that it was important to find out what the County is doing first and that an MCPS representative should be invited to a future WQAG meeting.
	Chair Silverman commented on the importance of outreach to adults as well as to children. Vice-Chair Rood pointed out the need to go beyond the 'choir' as an audience in order to create a long-term impact.
7. Report: Regulatory Sub Committee. Eileen Straughan	Eileen Straughan noted that the Regulatory Subcommittee was not yet ready with a final list of recommendations. She reminded members of the 9/19 forum at WSSC about the Clean Water Task Force. Both Vice-Chair Rood and Meo Curtis of DEP would be speaking at the forum. NOTE: The Regulatory Subcommittee held a conference call on 10/24. One of the outcomes was a request that represented County agencies inform the WQAG whenever the agency is briefing Council or one of its Committees on a water resource-related topic. Below is the e-mail from Ms. Curtis with recommendations to the Regulatory Subcommittee members on keeping themselves informed about Council activities. Rather than each separate council analyst, it might be best to contact the Council Staff Director to inquire about being included on one or more 'notice' list based on your areas of interest. The Council Staff Director is Steve Farber, steve.farber@montgomerycountymd.gov, 240-777-7941. About County Council information. Here is the link to the Council web page which provides the background information on council organization, including descriptions for each of the six standing committees. http://www.montgomerycountymd.gov/csltmpl.asp?url=/content/council/mem/members.asp This is the news page for Council, including the schedule and agendas (if available) for both full Council and for each of the six committees. http://www.montgomerycountymd.gov/csltmpl.asp?url=/content/council/index.asp

Meeting was adjourned at 9 p.m.

Next meeting: November 19, 2007

Meeting summary prepared by Meo Curtis, DEP

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Agenda Item	Action
	This is the link to legislation and resolutions, introduced and passed. <pre>http://www.montgomerycountymd.gov/csltmpl.asp?url=/content/council/leg/bill/2007.asp</pre>
8. Decision- Making: DPWT Storm Drain Marking Program. Mike Smith.	Chair Silverman moved to the next agenda item, raised by Mike Smith. Scott Kauff advocated that there should be a more generic 'goes to local streams' rather than using the name of the specific local stream. He reasoned that most people don't know the name of the local stream, and in an upstream county like Montgomery County, will not relate to 'goes to Bay' because that will be perceived as a downstream problem. Tanya Spano suggested that there was an opportunity to get input at the 10/27 Watershed Conference. Mr. Smith re-iterated that he felt strongly about the need for the specific subwatershed label.
9. Planning: Next Steps. Dusty Rood	For the next meeting, the Education Subcommittee will report. For the December meeting, the Regulatory Subcommittee will report. Meo Curtis reminded all of the upcoming Watershed Conference 2007 at the Council Office Building in Rockville on 10/27, 8:30 a.m3:30 p.m. and also the briefing by the Bay Cabinet Agencies (DNR, MDE, MDP, DNR) on state regulatory and programmatic issues and impacts on local efforts, at the MNCPPC auditorium in Silver Spring on 11/7 from 10:00 a.m Noon.
	Monday November 19 from 7 to 9 p.m. The meeting was moved to the third, rather than second, se of the federal holiday (Veterans' Day) on Monday November 12th.

Meeting was adjourned at 9 p.m.

Next meeting: November 19, 2007

Meeting summary prepared by Meo Curtis, DEP

Attachment 1.

----- Forwarded message -----

From: Glenn Moglen < moglen@umd.edu>

Date: Oct 19, 2007 12:57 PM

Subject: Water Quality Advisor Group - A couple of comments on county road practices

To: councilmember.floreen@montgomerycountymd.gov

Cc: Larry Silverman < lioelsilverman@gmail.com >, Dusty Rood < drood@rodgers.com >

Ms. Floreen,

It was a pleasure to meet you at our group's monthly meeting this past Monday (October 15). I wanted to pass along some thoughts on county road building/maintenance practices that are a concern to me in light of their negative effects on our county's streams.

Bad Practice #1: Curb and gutter street design (please see: US Geological Survey publication "Flood Characteristics of Urban Watersheds in the United States" by Sauer et al, 1983) is particularly associated with increased flood flows tostreams. I would like to see the county consider revisiting urban street design to support grassed swales (or other more environmentally friendly road designs) and to avoid traditional curb/gutter design if at all possible. The county code seems to be that if sidewalks are installed, they must add a curb/gutter to the edge of the road. This happened on Dale Drive right across from my house and I've watched storm flows and subsequent local erosion from non-infiltrated runoff grow enormously in the few years the sidewalks have been in place. I'd like the county to consider alternative ways to install sidewalks that would be consistent with grassed swales and would NOT require curb/gutter street design.

Bad Practice #2: The other issue I'd like to discuss is the county Public Works Department's practice of doing surface treatments on some roads. These surface treatments involve applying hot tar to the road surface and laying down a thin layer of gravel, followed by a steamroller. Although most of the gravel adheres to the tar/road, some does not. This loose gravel then is transported to streams during storm events with the gravel serving to clog spawning, and refuge areas for fish, and other aquatic organisms. Again, I've observed this county practice first-hand in front of my house on Dale Drive near downtown Silver Spring. If the county practice of these surface treatments is to persist, there needs to be meticulous and follow-up street cleaning to capture all gravel that is not successfully incorporated into the road surface. Also some sort of equivalent to "silt fences" at points of entry of the gravel into storm sewers and stream should be erected so as to capture stray gravel that would otherwise enter.

I would be happy to elaborate more on either of the practices described above both as to why they are problematic for stream health and as to possible alternative practices. My contact information appears below. Please let me know how I might help you get the information you need and how we might work together to support better stream quality in Montgomery County.

- Glenn Moglen

--

Glenn Moglen
Associate Professor
Department of Civil and Environmental Engineering
National Center for Smart Growth Research and Education
University of Maryland
College Park, MD 20742
301-405-1964
moglen@umd.edu
http://www.ence.umd.edu/~moglen/

Meeting was adjourned at 9 p.m.

Next meeting: November 19, 2007

Meeting summary prepared by Meo Curtis, DEP

Attachment 2.

WATER QUALITY ADVISORY GROUP

Communication/Education/Outreach Subcommittee Update Monday, October 15, 2007

Members: Jill Coutts, Kay Fulcomer, Lonnie Luther, and Tanya Spano

Based on discussions at the last WQAG meeting (September 10th), the Subcommittee agreed to focus efforts over the coming year on the following key areas:

- 1. **Regional Issues** Summarize regional water quality-related programs/efforts/issues in order to establish a baseline of background information for everyone, and to identify any potential recommendations for the WQAG's consideration;
- 2. **Education** Talk with teachers and others/evaluate the curriculum for Montgomery County Public Schools and identify any recommendations that would enhance the focus on water quality issues; and
- 3. **Outreach** Focus efforts to address water quality issues and opportunities within the following priority communities:
 - a. Agricultural community; and
 - b. Urban stormwater/watershed communities.

We suggested addressing these topics at upcoming WQAG meetings within the following timeframes:

- Regional background information & recommendations February 2008
 - O **Update** Intend to work with Meo and others to summarize/communicate ongoing efforts, contacts, and potential options for involvement so that the WQAG and/or its subcommittees can choose to pursue/investigate any of these regional efforts if not already being done.
- Educational recommendations April 2008 (definitely before May)
 - O Update "I [Kay] have examined the Maryland State VSC (Voluntary Science Curriculum) Environmental Education standards for Grades K through 8. Montgomery County has revised its K-8 science curriculum and promises to have it available soon. MCPS has always claimed to "meet or exceed" the VSC so I expect it will be similar. I have recently made presentations on water quality to all of the fifth grade classes at Waters Landing Elementary School. I have copies of their questions and comments, which reflect a tiny, but interesting sample of understand /perceptions/attitudes in their community. I can share these briefly with the committee when we meet."
- Public Outreach recommendations: More specifics still to be determined
 - o Agricultural TBD
 - Consider Farm Bill implications as an initial basis for dialogue.
 - O Urban stormwater/watershed TBD
 - Initially, suggest distribution of a simple informational flyer at the October 27th watershed stewardship conference (e.g., to let folks know the WQAG exists, what this year's priorities are, alert them to our current web site, provide them with a contact(s), and invite them to share their concerns/ideas with us.
 - Stormdrain Decal Issue We also hope to get feedback from the participants of the conference regarding this issue in order to potentially develop recommendations for the November WQAG meeting.
 - Issues for WQAG consideration include, but are not limited to: cost/cost-effectiveness of specialized vs. more generic messages; who should pay; inventory/availability issues; determining whether a watershed or subwatershed focus is more effective/appropriate for promoting stewardship; etc.

Meeting was adjourned at 9 p.m.

Next meeting: November 19, 2007

Meeting was adjourned at 9 p.m.

WQAG MEETING SUMMARY--DRAFT

November 19, 2007 DEP, 255 Rockville Pike, Suite 120, Rockville MD 20850

7:00 p.m.- 9:00 p.m.

Member and affiliation	Present		Others in otton dense and officiation
Member and annauon	Yes	No	Others in attendance and affiliation
Ed Brandt, public-at-large	✓		Mark Symborski, MNCPPC Planning
Jill Coutts, scientific/academic	✓		Eleanor Briggs, interested observer
Kay Fulcomer, public-at-large	✓		
Scott Kauff, public-at-large	✓		
Lonnie Luther, agricultural	✓		
Glenn Moglen, scientific/academic	✓		
David Plummer, agricultural	✓		
Dusty Rood, Vice-Chair, business		✓	
Fred Samadani, agricultural		✓	
Mary Segall, business	✓		
Larry Silverman, Chair, environmental	✓		
Mike Smith, environmental	✓		
Tanya Spano, environmental	✓		
Eileen Straughan, business	✓		
Ilisa Tawney, public-at-large	✓		
Martin Chandler, WSSC	✓		
Meo Curtis, DEP			
Doug Redmond, MNCPPC	✓		

Agenda Item	Action
Welcome and agenda and summary. Chair Silverman	Chair Silverman welcomed all and asked for approval of the draft agenda and summary. Scott Kauff informed the WQAG of introduced National Bottle Recycling Bill with Congressman Van Hollen as a co-sponsor and he requested that this be added as an item to the end of the agenda. Tanya Spano mentioned that the Executive had announced a DEP director, Mr. Robert Hoyt formerly of MDE and CBF.
	The WQAG voted approval of the amended agenda and draft summary.
2. Regulatory and Technical Committee Report, and proposed letter to CE and Council (25 minutes) Eileen	Ms. Straughan provided the status of this Committee's activities since the last WQAG meeting. A number of members had participated in the Bay Cabinet agency briefing that took place at MNCPPC on November 7. Chair Silverman noted that it was clear that more resources would be needed at the local level for developing the Water Resources Element (WRE) required for HB1141 and for implementation. HB1141 requires all state jurisdictions to show how drinking water, wastewater, and stormwater management capacity will be provided to meet population based on zoning. He suggested that the WQAG should send a letter to the Executive to urge that these resources be provided. Mr. Kauff asked what specific tasks needed resources. The MNCPPC Planning Department was identified as the lead agency for the HB1141 effort. Mark Symborski indicated that the development of the WRE is included in the Planning Department's work program for the coming year.
Straughan	The WQAG then entertained a motion to have Chair Silverman draft a letter about the needs and implications of the WRE. If consensus was achieved, defined as at least 80% of the WQAG members agreeing to the letter's content, then it would be transmitted to the County Executive and Council.
	Glenn Moglen noted that there needed to be differentiation between allocation of resources to develop the plan and those for implementation. Questions were raised about the details of HB1141 in protecting water quality and how to address already

Meeting was adjourned at 9 p.m. Next meeting: December 10, 2007

WQAG MEETING SUMMARY--DRAFT

Agenda Item	Action
G	developed areas and impaired waters. The motion was withdrawn and Chair Silverman agreed to develop a letter for comment and reconsider this action at the next meeting.
 Report of Education 	Jill Coutts provided an overview of the Montgomery County Public School science curriculum, which is based on the Maryland State Department of Education Standards. She provided several handouts which are attached to this meeting summary. In fourth and sixth grade, students study ecosystems and the Chesapeake Bay watershed as major science units that focus on the interdependence of living and non-living parts of the ecosystem, and the effects of human activities on water quality in the ecosystem. Science units in grades 5, 7 and 8 include supplementary water-related topics such as: the water cycle, weather, pH, and organisms that live in water. Throughout elementary and middle schools, there is integration across disciplines (math, science, social studies) so that environmental information is somewhat infused into subjects other than science. In high school all students take a biology course. In-depth environmental education is available in Horticulture and Environmental Studies classes. Through these classes students have tackled specific environmental issues and produced impressive results.
and Outreach Committee (25 Minutes) Jill Coutts	MCPS students also participate in outdoor education (3-day program), Science Fair, Student Inquiry Conference, and other events. Students are required to earn Service Learning credits for graduation. Some schools are part of the "Green Schools" Program. All schools actively recycle, and aim to conserve energy through the SERT program. Concerning the effectiveness of the MCPS teaching of water quality information, we must understand that teachers have many responsibilities which create conflicts, and limited time is available for teaching more than a basic understanding unless the teachers have a special interest in those topics.
	Anja Caldwell is the program manager for schools and for assuring that all new schools will be 'green' schools, that is LEED certified. Mary Segall noted that the State and the County seem to have good programs and a well-developed watershed outreach curriculum, and wondered what the Committee's recommendations were to improve the programs. Ms Coutts replied that the Committee had not identified any specific recommendations to improve water quality. Ms. Coutts agreed to invite Anja Caldwell to a future meeting to provide an update on the Green Schools Program since her last visit to the WQAG in May 2006.
4. The Farm Bill, Letter to CE (20 minutes) David, Lonnie, Larry	Chair Silverman had distributed via e-mail a draft letter to the Executive and Council urging support for the Farm Bill. Mr. Kauff and others encouraged that the letter should link the Farm Bill with the importance of agriculture in protecting water quality. The WQAG agreed that there needed to be a consensus on the letter before it could be sent. Chair Silverman will revise and distribute the letter and WQAG members will provide comments by the end of next week (11/30) so that the letter can be finalized and transmitted.
5. Next Steps on Technical and Regulatory and Education and Outreach (20 minutes) General	It was almost 9 p.m. at this point in the meeting, and therefore discussion on the last agenda items was very abbreviated. Mike Smith asked about recommendations on the stormdrain decal program that had been discussed at the October meeting. Tanya Spano noted that the Education and Outreach Committee was considering this item as part of a broader question on watershed outreach activities in the County and would report recommendations at a future meeting. Scott Kauff agreed to review the language of the proposed Bottle Recycling bill and provide comments back to the rest of the WQAG.
6.Next Meeting: December 10.	Chair Silverman asked members about adding a meeting in December to continue with the Committee priorities and address some unresolved issues. David Plummer raised concerns about missing this meeting and having it count against required attendance. Meo Curtis noted that attendance would be required if the WQAG intended to vote on actions at the meeting. The WQAG voted to hold a meeting, with David Plummer and Kay Fulcomer voting nay.

Meeting was adjourned at 9 p.m.

Next meeting: <u>December 10, 2007</u>

Meeting summary prepared by <u>Meo Curtis, DEP</u>

J.11 Couts WQAG-11/19/07

Elementary Science Curriculum

Topics which support student awareness of Chesapeake Bay watershed/local stream health

Fourth Grade

Life Science: Students observe, discuss and read about land and water ecosystems. Throughout the unit, students explore concepts of living things, their basic needs, how organisms are classified, the relatedness between living organisms, the features that make organisms well suited to their environment, the flow of energy and matter, and how organisms interact with one another and the environment. Students construct knowledge through reading, writing and handson investigations using an model ecosystem.

Ecosystems: Students continue to observe and work with the model ecosystems they constructed in the Life Science unit. Throughout the unit students explore the characteristics of organisms which help them to survive and reproduce in specific habitats and how organisms interact with their environment. Students investigate the natural or human-made factors that can disrupt a stable environment and consider how human decisions and actions can be both beneficial and harmful to the environment. Students construct and conduct their own investigations to observe, conclude, and infer about the effects of pollution and/or pollution by-products on the environment.

Earth Science: Students explore the materials that make up the Earth's surface. The students begin the unit by building on their knowledge of matter, in particular that matter is made up of smaller parts. This sets the stage for students to learn that rocks are made of minerals. Making detailed observations and recording observations are key skills to be developed throughout the unit. Students explore fossils to see how fossils of organisms provide insight into organisms and environments of the past. Students complete the unit with an exploration of how erosion and weathering impact the surface of the Earth.

Middle School

The middle school science program allows students to investigate both the concepts and process skills of science. At each grade level, topics in earth science, biology, chemistry, and physics are interconnected to show students the relationships that exist between the sciences and the natural world. Inquiry and laboratory investigations are an integral part of the program. Problem solving and online investigations are used continually to allow students to investigate authentic problems and reinforce science concepts.

The middle school science program was developed through a National Science Foundation grant and reflects the Maryland and National Science Content Standards. High expectations and differentiated instruction allow all students a challenging and engaging access to science.

Grade 6 Living in the Natural World

Unit 1: Ecosystems and the Chesapeake Bay

By the end of this unit, students will be able to do the following:

- Investigate ecosystems, using the Chesapeake Bay as a model.
- Investigate populations and factors that influence them.
- Explore energy roles and how energy moves through an ecosystem.
- Participate in outdoor education.
- Earn student service learning credit.

Unit 2: Diversity and Adaptations of Organisms

By the end of this unit, students will be able to do the following:

- Explore similarities and differences among organisms.
- Explore diversity and adaptations of organisms.
- Explore relationships between organisms and their environment.
- Investigate how species change over time.

MD State Department of Education mandates that all students have at least one watershed experience before they graduate. This is generally fulfilled through the Outdoor Education experience.

Grade 8 Living in a World of Change

The following unit can be supported through stream study to investigate such things as DO, nitrates/nitrites, phosphorus in local streams

Unit 2: Introductory Chemistry

By the end of this unit, students will be able to do the following:

- Investigate how matter can be identified by observable measurable properties.
- Distinguish between physical and chemical changes.

High School Courses:

Biology: All students must take and pass biology for graduation in Maryland. The course includes one unit on ecosystems, which is a natural fit for stream and bay studies.

Environmental Science/AP Environmental Science:

Many teachers use the opportunity to conduct stream and forest ecosystems study in both courses. In-depth study of the effects of human populations on the ecosystem and global climate change is an important component of each course.

AP Environmental Science: Senior Projects, current events, in-depth lab investigations

Supplemental Study:

MAMMS: Using GIS to study Maryland streams, includes analysis of sprawl on the health of local streams, with field investigations and GIS analysis. Schools can share data of local streams with other schools in watershed.

Smithsonian National Zoo's Biodiversity Study: Using the forest ecosystem to study biodiversity.

My World GIS environmental investigations

GreenSchools: Energy conservation, soon to include water conservation, competitions to investigate Global Climate Change and plans for lowering school's carbon footprint.

- Aquaculture in the Classroom: Turn your classroom into a native fish hatchery and raise such native species as yellow perch and american shad.
- Tree or Wetland Plant Nursery: Relieve the need for native trees! Grow throughout the year and supply your trees and plants for local projects.
- Stream Clean-up and Steam Bank Stabilization Projects
- Water Quality Monitoring: Become scientists and assess the health of your local stream using test kits and aquatic insects.

Resources

Resources	
Native Plants and Nursery	MD Native Plant Society: <www.mdflora.org>or US Fish &</www.mdflora.org>
	Wildlife Service: <www.fws.gov r5cbfo=""></www.fws.gov>
Schoolyard Habitat Guide	US fish &Wildlife Service: <www.fws.gov r5cbfo="" schoolvd.htm=""></www.fws.gov>
Sources for Trees and Shrubs	MD DNR, Tree-Mendous MD Program: Terry Galloway: 410-
	2600-8531, <www.dnr.state.md.us forests="" treemendous=""></www.dnr.state.md.us>
	Local Forestry Boards:
	<pre><www.dnr.state.md.us forest="" phonelist.html=""></www.dnr.state.md.us></pre>
	Baltimore County Forestry Board: Mel Noland: 410-592-2400
	Kollar Nursery: 410-836-0500
	Sylva Native Nursery: 717-227-0486, <www.sylvanative.com></www.sylvanative.com>
	Clear Ridge Nursery: 410-848-4789
	Adkins Arboretum: 410-634-2847, <www.adkinsarboretum.org></www.adkinsarboretum.org>
Source for Wetland Plants	Environmental Concern, Inc.: 410-745-9620, <www.wetland.org></www.wetland.org>
	Signature Horticulture Service: 410-329-6466
BayScaping Projects	US Fish & Wildlife Service: 410-573-4500,
	<www.fws.gov bayscapes.htm="" r5cbfo=""></www.fws.gov>
	Alliance for the Chesapeake Bay: 410-377-6270, <www.acb-< td=""></www.acb-<>
	online/bayscapes.htm>
Rain Barrel Projects	Arlington Echo Outdoor Education Ctr:
Tum Burrer 2 rejeste	<www.arlingtonecho.org r_barrels.htm=""></www.arlingtonecho.org>
Habitat Structures (i.e., bird	MD DNR, Wild Acres Program: 410-260-8555
box plan)	
Growing Bay Grasses	Bay Grasses in Classes: CBF, 1-800-445-5572 and MD DNR, 410-260-8652
Oyster Gardening Program	Chesapeake Bay Fountain: 1-800-445-5572, <www.cbf.org></www.cbf.org>
Aquaculture in the	Schools in Schools Program-CBF: 1-800-445-5572,
Classroom	<www.cbf.org></www.cbf.org>
	Horseshoe Crabs-MD Dept. of Natural Resources: 410-22-3822
Sources for Storm Drain	CBF: 1-800-445-5572, <www.cbf.org></www.cbf.org>
Stencils	
Monitoring and Stream	Izaak Walton League, Save Our Streams: 1-800-BUG-IWLA,
Clean-ups	<www.iwla.org sos=""></www.iwla.org>
	Audubon Naturalist Society:
	<www.audubonnaturalist.org waterqua.htm=""></www.audubonnaturalist.org>
	Montgomery County Stream Teams Program: 240-777-7714

Student Service Learning (SSL) Connections Grade 6 Science

Students will investigate problematic and eco-friendly points in a local community or ecosystem related to the environment and the population. Project ideas will help restore the local school community and the Chesapeake Bay.

Unit: Ecosystems and the Chesapeake Bay (6ECO)

Connection: Environmental and Population Issues

- 6.6.4 compare how different parts of the world have varying amounts and types of natural resources and how the use of those resources determines environmental quality (i.e. soil erosion, water pollution, deforestation).
- 6.6.5 cite examples illustrating how human activities can accelerate or magnify many naturally occurring changes (i.e., erosion, air and water quality, populations).
- 3.6.12 analyze evidence that within ecosystems organisms have different functions (niches) that enable the ecosystem to survive.
- 1.6.5 demonstrate safety when conducting an investigation.
- 1.6.7 collect, organize, and display data in ways others can verify (i.e. numbers, statistics, tables, graphs, drawings, charts, diagrams) using appropriate instruments (e.g., calculators, spreadsheets, databases, and graphing programs).

Essential Questions

In what ways do individuals have a positive and negative impact on an ecosystem?

Enduring Understanding

Our understanding of ecosystems can be modeled through the Chesapeake Bay.

Connection Environmental and Population Issues in the local community and the Chesapeake Bay

Sample Projects

- Storm drain stenciling: Paint "Don't Dump! Chesapeake Bay Drainage" around your school ground and in your neighborhood.
- Tree Planting: Make your area cleaner and greener by planting near streams, wetlands, or drainage areas.
- Wetland Habitat Enhancement: Turn a neighborhood sediment pond or wetland area into a habitat for wildlife and help reduce erosion.
- Native Plant BayScape Plantings: Show your community a way to plant native plants to reduce the need for watering, fertilizers, and erosion.
- No-Mow-Zones and Meadows: Create a native grass and wildflower meadow with habitat structures like bluebird, bat, and duck boxes.
- Bay Grasses in Classes: Grow bay grasses in the classroom and plant in your local waterway.
- Oyster Gardening: Build a float and raise oysters in a nearby waterway.



Voluntary State Curriculum - Science

60 Environmental Science -- Studens will use scientific skills and processes to explain the interactions of environmental factors (living and nonliving) and analyze their impact from a local to a global perspective.

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Grade 8	A. Natural Resources and Human Needs		
Grade 7	A. Natural Resources and Human Needs	Recognize and explain the impact of a changing human population on the use of natural resources and on environmental quality. Based on data identify and describe the positive and negative impacts of an increasing human population on the use of natural resources to Recognize and blassible the decreasing opportance on the additional resources the farmal resources the decreasing opportance on the additional resources the form impact of a particular particular products of the impact of a particular particul	
Grade 6	A. Natural Resources and Human Needs	i Recognize and compare how different parts of the world have varying amounts and types of natural resources and how the use of those resources impacts environmental quality. a identify and describe natural resources as identify and describe natural resources as Windlife. Forests Windlife. Forests Windlife. Windlife of hughly resolutes around the Hahlife (Industry processes may be affected by human activities). b. Identify and describe how the natural defining processes may be affected by human activities. c. Identify and describe nothers associated with obtaining, using, and distributing natural resources. c. Identify and describe problems associated with obtaining, using, and distributing natural resources. c. Identify and distributing natural resources.	
Grade 5	A. Natural Resources and Human Needs	Recognize and explain how renewable and nonzenewable natural resources found in Maryland are used by humans to meet bane aceds. Identify and compare Maryland's renewable resources, and nonzenewable resources, and nonzenewable resources, such as plands, soil, water, animals. Describe how humans use nonzenewable natural resources, such as oil, coal, natural gas, minerals, including metals.	
Grade 4	A. Natural Resources and Human Needs		
1 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1	A Natural Resources and Human Needs		

Nay 1005 (December 30, 1005)
Note: Highlighting identifies proposed assessment limits. All highlighted Indicators will be tested on the Grades 5 and 8 MSA. The highlighted Objectives under each highlighted Indicators identify the limit to which MSA tiems can be written. Although all content standards are tested on MSA, not all Indicators and Objectives are tested. Objectives that are not highlighted will not be tested on MSA, however are an integral part of Instruction.



				132 M
Grade 8	B. Environmental Issues	activities can accelerate or magnify many paturally occurring changes. Based on data from research identify and describe how natural processes change the environment Cyclic climate change Setimentation or vitersheds Population or yeles Lidentify and describe how human processes: Climate change Extraction Lidentify and describe how human processes: Climate change Loss of habitad Loss of habitad Loss of habitad Loss of habitad Lycling of matural		
Grade 7	B Environmental Issues	Recogaze and describe that cenvironmental changes can have local, regional, and global causquences. Identify and describe a local, regional, or global environmental issue. b. Identify and describe that different individuals or groups are affected by an issue in different ways.		
Grade 6	B. Environmental Issues	Recognize and explain that human- caused changes have consequences for Maryland's exurcament as well as for other places and future times. a. Identify and describe a range of local issues that have an impact on people in other places. b. Recognize and describe how environmental change in one part of the world can have consequences for other parts of the world. c. Identify and describe that ecosystems can be umpacted by human activities. • Protection of the Chesapeake Bay watershed • Resource acquisition and use • Land use describe that muning, and development) • Recycling. Western that the chestion of the state described in the chestion of the state described in the chestion of the chestion of the burning and development) • Recycling.		
Grade 5	B Environmental Issues	influencing the use of natural resources may have benefits, drawbacks, unexpected consequences, and tradeoff. Leaning and describe personal and community behaviors that waste natural resources and/or cause environmental harm and those behaviors that manitan or improve the environmental harm and those behaviors that maintain or improve the environment and and those heaviers and and those heaviers and drawage risk to the environment.	2. Recognize and describe that consequences are used. a. Explain how human activities may have positive consequences on the natural environment. a. Recycling contents b. Manve plantings c. Good farming partice b. Explain how human activities may have a negative consequence on the manual environment. b. Damage or destruction done to habitats c. Ant., water, and land pollution c. Identify and describe that an environmental issue affects individuals and groups differently.	
Grade 4	B. Environmental Issues	Recognize and describe that people in Maryland depend on, change, and are affected by the environment.	705	
ferselp 3	B Environmental Issues			

Page 37 of 37 Amy 2005 (December 30, 2005)
Note: Highlighung identifies proposed assessment limits. All highlighted Indicators will be tested on the Grades 5 and 8 MSA. The highlighted Objectives under each highlighted Indicator identify the limit to which MSA items can be written.
Atthough all coment standards are tested on MSA, not all Indicators and Objectives are tested. Objectives that are not highlighted will not be tested on MSA, however are an integral part of Instruction.

... ...

December 10, 2007 DEP, 255 Rockville Pike, Suite 120, Rockville MD 20850

7:00 p.m.- 9:00 p.m.

Mambay and offiliation	Present		0.1
Member and affiliation		No	Others in attendance and affiliation
Ed Brandt, public-at-large	✓		Vince Berg, interested citizen
Jill Coutts, scientific/academic	✓		Bob Hoyt, in-coming DEP Director
Kay Fulcomer, public-at-large	✓		Mark Symborski, MNCPPC
Scott Kauff, public-at-large	✓		
Lonnie Luther, agricultural	✓		
Glenn Moglen, scientific/academic	✓		
David Plummer, agricultural	✓		
Dusty Rood, Vice-Chair, business	✓		
Fred Samadani, agricultural	✓		
Mary Segall, business	✓		
Larry Silverman, Chair, environmental	✓		
Mike Smith, environmental	✓		
Tanya Spano, environmental	✓		
Eileen Straughan, business	✓		
Ilisa Tawney, public-at-large		✓	
Martin Chandler, WSSC	✓		
Meo Curtis, DEP			
Doug Redmond, MNCPPC	✓		

Agenda Item	Action
Welcome and agenda and summary. Chair Silverman	Chair Silverman welcomed all and asked for comments on the agenda and meeting summary. Ms. Curtis noted that Ms. Fulcomer had added a section to the meeting summary about schools and environmental outreach. There were some other minor corrections from Mary Segall and Scott Kauff. The WQAG approved the meeting summary with all submitted changes. Ms. Curtis also asked all members to check the accuracy of the list provided of members by committee and also the proposed meeting calendar for 2008. Members should contact her by the end of that week (December 14) if there were any conflicts. For the agenda, Ms. Spano requested that the Outreach and Education Committee report occur prior to hearing a motion on the Storm Drain Stenciling. The WQAG approved this request.
2. Farm Bill. Chair Silverman	Chair Silverman had forwarded a letter to the Executive with the concerns raised at the November meeting and in subsequent e-mails through the WQAG. He noted that the Executive had two Boards/Committees/Commissions related to agriculture and suggested that the WQAG consider a joint meeting with them. Dusty Rood made a motion to ratify this letter on the Farm Bill that was sent on behalf of the Water Quality Advisory Group. The motion was approved and passed. Chair Silverman suggested that the WQAG should continue to work on this theme
	through one of the Committees. After some discussion about the goal for continuing to work on the Farm Bill, it was decided to wait to hear from the Executive before deciding next steps. If any member became aware of an agricultural water quality issue, that specific issue could be raised at any future meeting.
3. Introduction of Bob Hoyt, new DEP Director	Chair Silverman then introduced Robert Hoyt, new Director of DEP. Mr. Hoyt thanked the WQAG for this opportunity to participate in their meeting. He provided his experience in the public, non-profit, and private sectors (attorney, Chesapeake Bay Foundation, Maryland Department of the Environment, and Ecologix, Inc.). The WQAG members then introduced themselves including experience and affiliations. After the introductions, Mr. Hoyt continued on his general environmental philosophy,
	including the importance of sustainability, partnerships, and showing progress for

Meeting was adjourned at 9 p.m. Next meeting: <u>January 14, 2008</u>

Agenda Item	Action
Agentia Item	environmental protection. He suggested that the WQAG could help in this effort by: *identifying what message needed to be conveyed *creating an audience with the Executive and the Council *supporting those programs which they feel will make the biggest difference in water quality *bringing the message from their represented interest groups and *reaching out to those in the county not really interested in water quality issues. Mr. Hoyt was asked to identify what would be the top priority environmental issues for the County. He deferred being very specific until he had an opportunity to meet with staff and gain more familiarity with the County's programs. He did note as important: the reissuance of the MS4 permit, dealing with global warming, preserving agricultural resources, and regional cooperation. He also mentioned that obtaining resources to support water quality improvement programs to meet TMDLs and Tributary Strategies
	reductions needs to be addressed. Mr. Silverman and the other WQAG members thanked Mr. Hoyt for coming to the meeting and providing his overview on water resources protection. A. January meeting agenda. Jill Coutts was working with Ed Murtagh, Friends of Sligo
5. Outreach and Education Workgroup. Jill Coutts and Tanya Spano	Creek (FoSC), and Steve Dryden, Friends of Rock Creek Environment, on watershed education needs. The FoSC Stormwater Committee had committed to holding a workshop in February on how interested residents could become involved in watershed outreach, especially to minorities. Ansu John of DEP had agreed to come to the January WQAG meeting to talk about DEP watershed outreach efforts and receive input from the WQAG on improving outreach. Several WQAG members volunteered to ask Councilmember Valerie Ervin to the January meeting. At the Watershed Conference in Fall, 2007, Councilmember Ervin had identified minority outreach as important for long-term environmental protection. The WQAG decided that one-half hour of the January meeting would be spent on the Annual Report and that the remaining one and one-half hour would be dedicated to the Outreach and Education Committee. Chair Silverman agreed to draft an Annual Report for review and comment at the January meeting in preparation for the meeting with the Executive during February.
	B. Storm drain markersThe Outreach and Education committee had met immediately prior to the WQAG meeting and agreed to support Mike Smith's recommendations for the program with two additions: Use larger-size markers and use the 'door hangers' on nearby doors to directly increase awareness about preventing pollutants from entering the storm drain system. Mr. Smith agreed to provide language for a recommendation letter to the Executive and Council for signature by the Chair.
6. Regulatory and Technical Committee Eileen Straughan and Chair Silverman	The Committee had not convened since the November WQAG meeting. Chair Silverman brought up the importance of HB1141 (Water Resources Element (WRE)) and the need for the Executive and Council to allocate resources for completing the WRE. Mark Symborski of MNCPPC noted that developing the WRE was already in the MNCPPC work program for this year, and that the need for additional resources would be better defined once more work has been completed. The intent is to work with other County agencies and with Prince George's County to develop a strategy which will be presented to MDE. If MDE identifies gaps, then additional resources may be needed to complete the WRE. This strategy will not be ready before April.
7. Land Use Committee and next steps	Vice-Chair Dusty Rood noted that the question of the HB1141 progress had originally been brought up by the Land Use Committee. WQAG members agreed that there were overlaps between the two Committees on this bill and perhaps on other issues already identified by the WQAG. Vice-Chair Rood agreed to compile a matrix with all issues raised by the three Committees.
8. Next meeting and adjournment.	Next meeting will be Monday January 14th at DEP. The WQAG adjourned at 9 p.m.